

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	("7153984").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 06:00
L2	3	("3920582").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 06:01
L3	3	("3053884").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 06:02
L4	0	("methanetrisulfonic").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 07:40
L5	18	methanetrisulfonic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 08:32
L6	374665	phenol	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 06:03
L7	5	I5 and I6	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 06:03
L8	5	I5 same I6	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 06:03
L9	0	("3053884").URPN.	USPAT	OR	ON	2007/06/12 06:09
L10	2	("6103924").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 06:10
L11	2	("20020004619").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 06:38
L12	1	("4247720").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 06:43

## EAST Search History

L13	126	ketoisophorone	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 06:43
L14	1	I5 and I13	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 06:43
L15	213883	sulfonic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 06:44
L16	22	I13 and I15	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 06:44
L18	1	I13 same I15	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 06:48
L19	17	"2149159"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:03
L20	2	("3082258").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 07:09
L21	1	"19805690"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:26
L22	580	560/254.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:39
L23	0	I13 and I22	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:27
L24	0	I5 and I22	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:27
L25	64920	hydroquinone	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:29

## EAST Search History

L26	35	I22 and I25	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:29
L27	67055	\$hydroquinone	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:39
L28	0	("methanesulfonic").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 07:40
L29	52312	methanesulfonic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:40
L30	174	methanedisulfonic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:55
L31	0	I13 and I30	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:41
L32	9	I13 and I29	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 07:41
L33	0	(methanetrisulfonic and (ketoisophorone or "3,5,5-trimethyl-4-benzoquinone") and hydroquinone).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 08:32
L34	0	(methanetrisulfonic and (ketoisophorone or "3,5,5-trimethyl-4-benzoquinone")).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 08:33
L36	2	("20070123720").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/06/12 08:31
L37	1	(methane adj trisulfonic and (ketoisophorone or "3,5,5-trimethyl-4-benzoquinone") and hydroquinone).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 08:32
L38	19	methane adj trisulfonic	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 08:32

## EAST Search History

L39	1	(methane adj trisulfonic and (ketoisophorone or "3,5,5-trimethyl-1,4-benzoquinone")).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 08:33
L40	17	I38 not I5	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 08:34
L41	16	I5 not I38	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/06/12 08:42

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TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS	3	JAN 16	CA/CAPLUS Company Name Thesaurus enhanced and reloaded
NEWS	4	JAN 16	IPC version 2007.01 thesaurus available on STN
NEWS	5	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS	6	JAN 22	CA/CAPLUS updated with revised CAS roles
NEWS	7	JAN 22	CA/CAPLUS enhanced with patent applications from India
NEWS	8	JAN 29	PHAR reloaded with new search and display fields
NEWS	9	JAN 29	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS	10	FEB 15	PATDPASPC enhanced with Drug Approval numbers
NEWS	11	FEB 15	RUSSIAPAT enhanced with pre-1994 records
NEWS	12	FEB 23	KOREAPAT enhanced with IPC 8 features and functionality
NEWS	13	FEB 26	MEDLINE reloaded with enhancements
NEWS	14	FEB 26	EMBASE enhanced with Clinical Trial Number field
NEWS	15	FEB 26	TOXCENTER enhanced with reloaded MEDLINE
NEWS	16	FEB 26	IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS	17	FEB 26	CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases
NEWS	18	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS	19	MAR 16	CASREACT coverage extended
NEWS	20	MAR 20	MARPAT now updated daily
NEWS	21	MAR 22	LWPI reloaded
NEWS	22	MAR 30	RDISCLOSURE reloaded with enhancements
NEWS	23	APR 02	JICST-EPLUS removed from database clusters and STN
NEWS	24	APR 30	GENBANK reloaded and enhanced with Genome Project ID field
NEWS	25	APR 30	CHEMCATS enhanced with 1.2 million new records
NEWS	26	APR 30	CA/CAPLUS enhanced with 1870-1889 U.S. patent records
NEWS	27	APR 30	INPADOC replaced by INPADOCDB on STN
NEWS	28	MAY 01	New CAS web site launched
NEWS	29	MAY 08	CA/CAPLUS Indian patent publication number format defined
NEWS	30	MAY 14	RDISCLOSURE on STN Easy enhanced with new search and display fields
NEWS	31	MAY 21	BIOSIS reloaded and enhanced with archival data
NEWS	32	MAY 21	TOXCENTER enhanced with BIOSIS reload
NEWS	33	MAY 21	CA/CAPLUS enhanced with additional kind codes for German patents
NEWS	34	MAY 22	CA/CAPLUS enhanced with IPC reclassification in Japanese patents
NEWS EXPRESS			NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
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FILE 'HOME' ENTERED AT 05:41:16 ON 12 JUN 2007

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 05:41:32 ON 12 JUN 2007

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DICTIONARY FILE UPDATES: 10 JUN 2007 HIGHEST RN 936909-28-3

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<http://www.cas.org/support/stngen/stndoc/properties.html>

=> e ketoisophorone/cn

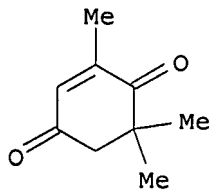
E1	1	KETOISDIN/CN
E2	1	KETOISOLACTARORUFIN/CN
E3	1	--> KETOISOPHORONE/CN
E4	1	KETOISOSTEVIC ACID/CN
E5	1	KETOISOVALERATE OXIDOREDUCTASE SUBUNIT (METHANOSARCINA BARKE RI STRAIN FUSARO)/CN
E6	1	KETOISOVALERATE OXIDOREDUCTASE SUBUNIT (METHANOSARCINA MAZEI STRAIN GOE1 GENE VORA)/CN
E7	1	KETOISOVALERATE OXIDOREDUCTASE SUBUNIT (METHANOSARCINA MAZEI STRAIN GOE1 GENE VORB)/CN
E8	1	KETOISOVALERATE OXIDOREDUCTASE SUBUNIT (METHANOSARCINA MAZEI STRAIN GOE1 GENE VORC)/CN
E9	2	KETOISOVALERATE OXIDOREDUCTASE SUBUNIT VORA (BACTEROIDES FRA GILIS STRAIN YCH46)/CN
E10	1	KETOISOVALERATE OXIDOREDUCTASE SUBUNIT VORA (BACTEROIDES THE TAIOTAOMICRON STRAIN VPI-5482 GENE BT0329)/CN
E11	1	KETOISOVALERATE OXIDOREDUCTASE SUBUNIT VORA (BACTEROIDES THE TAIOTAOMICRON STRAIN VPI-5482 GENE BT0330)/CN
E12	1	KETOISOVALERATE OXIDOREDUCTASE SUBUNIT VORB (BACTEROIDES FRA GILIS STRAIN YCH46)/CN

=> e3

L1 1 KETOISOPHORONE/CN

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN  
RN 1125-21-9 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN 2-Cyclohexene-1,4-dione, 2,6,6-trimethyl- (CA INDEX NAME)  
OTHER NAMES:  
CN 2,6,6-Trimethyl-2-cyclohexen-1,4-dione  
CN 2,6,6-Trimethylcyclohex-2-ene-1,4-dione  
CN 3,5,5-Trimethyl-2-cyclohexene-1,4-dione  
CN 4-Ketoisophorone  
CN 4-Oxo- $\alpha$ -isophorone  
CN 4-Oxoisophorone  
CN 6-Oxoisophorone  
CN keto-Isophorone  
CN Ketoisophorone  
CN Oxoisophorone  
CN Oxopholone  
CN Oxophorone  
MF C9 H12 O2  
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS,  
CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, IFICDB, IFIPAT,  
IFIUDB, MEDLINE, SPECINFO, TOXCENTER, USPAT2, USPATFULL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

390 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
396 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus  
COST IN U.S. DOLLARS  
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
7.35	7.56

FILE 'CAPLUS' ENTERED AT 05:42:06 ON 12 JUN 2007  
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FILE COVERS 1907 - 12 Jun 2007 VOL 146 ISS 25  
FILE LAST UPDATED: 10 Jun 2007 (20070610/ED)

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=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.47

8.03

FILE 'REGISTRY' ENTERED AT 05:42:15 ON 12 JUN 2007  
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STRUCTURE FILE UPDATES: 10 JUN 2007 HIGHEST RN 936909-28-3  
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<http://www.cas.org/support/stngen/stndoc/properties.html>

=> e metrhanetrisulfonic acid/cn

E1	2	METRETON/CN
E2	1	METREX/CN
E3	0 -->	METRANETRISULFONIC ACID/CN
E4	1	METRIAN/CN
E5	1	METRIAR/CN
E6	1	METRIAREZ-B/CN
E7	1	METRIAREZ-Γ/CN
E8	1	METRIBEN/CN
E9	1	METRIBOLONE/CN
E10	1	METRIBUSIN-BENEFIN MIXTURE/CN
E11	1	METRIBUZIN/CN
E12	1	METRIBUZIN DA/CN

=> e methanetrisulfonic acid/cn

E1	1	METHANETRISULFONAMIDE, N,N',N''-TRIS(1-PHENYLETHYL)-/CN
E2	1	METHANETRISULFONAMIDE, N,N',N''-TRIS(TRIMETHYLSILYL)-/CN
E3	1 -->	METHANETRISULFONIC ACID/CN
E4	1	METHANETRISULFONIC ACID, ALUMINUM SALT/CN
E5	1	METHANETRISULFONIC ACID, BARIUM SALT (2:3)/CN
E6	1	METHANETRISULFONIC ACID, BROMO-/CN



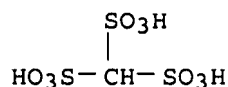
E7 1 METHANETRISULFONIC ACID, BROMO-, TRIETHYL ESTER/CN  
 E8 1 METHANETRISULFONIC ACID, BROMO-, TRIMETHYL ESTER/CN  
 E9 1 METHANETRISULFONIC ACID, BROMO-, TRIS(TRIMETHYLSILYL) ESTER/  
 CN  
 E10 1 METHANETRISULFONIC ACID, CHLORO-/CN  
 E11 1 METHANETRISULFONIC ACID, CHLORO-, TRIS(TRIMETHYLSILYL) ESTER  
 /CN  
 E12 1 METHANETRISULFONIC ACID, FLUORO-/CN

=> e3

L2 1 "METHANETRISULFONIC ACID"/CN

=> d 12

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN  
 RN 54322-33-7 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN Methanetrissulfonic acid (7CI, 9CI) (CA INDEX NAME)  
 DR 856207-29-9  
 MF C H4 O9 S3  
 CI COM  
 LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMLIST, CSCHEM,  
 GMELIN\*, IFICDB, IFIPAT, IFIUDB, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

25 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 25 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> e sulfonic acid/cn

E1 1 SULFONIAZIDE NITRATE/CN  
 E2 1 SULFONIAZIDE SODIUM/CN  
 E3 0 --> SULFONIC ACID/CN  
 E4 1 SULFONIC ACID LS/CN  
 E5 1 SULFONIC ACID, ((3,5-BIS(1,1-DIMETHYLETHYL)-4-HYDROXYPHENYL)  
 METHYL)-, MONOBUTYL ESTER, NICKEL COMPLEX/CN  
 E6 1 SULFONIC ACID, PHOSPHINO-/CN  
 E7 1 SULFONIC ACIDS/CN  
 E8 1 SULFONIC ACIDS, ALKANE, CHLORO/CN  
 E9 1 SULFONIC ACIDS, ALKANE, CHLORO, SODIUM SALTS/CN  
 E10 1 SULFONIC ACIDS, ALKANE, SODIUM SALTS/CN  
 E11 1 SULFONIC ACIDS, ALKANEDI-, DISODIUM SALTS/CN  
 E12 1 SULFONIC ACIDS, ALKANESULFONIC, CHLORO/CN

=> e methanesulfonic acid/cn

E1 1 METHANESULFONATE SULFONATASE MSUD (PSEUDOMONAS FLUORESCENS S  
 TRAIN PF-5 GENE MSUD)/CN  
 E2 1 METHANESULFONATE SULFONATASE; MSUD (MESORHIZOBIUM LOTI STRAI  
 N MAFF303099 GENE MLR5216)/CN  
 E3 1 --> METHANESULFONIC ACID/CN  
 E4 1 METHANESULFONIC ACID ((3'-((5-((TERT-BUTOXYCARBONYLAMINO)(IM  
 INO)METHYL)-2-(METHYLSULFANYL)THIEN-3-YL)SULFONYL)-4-(N,N'-B

IS (TERT-BUTOXYCARBONYL) GUANIDINO) -6-METHYLBIPHENYL-2-YL) CARBAMOYL) METHYL ESTER/CN

E5 1 METHANESULFONIC ACID ((3S,4R)-4-(((5-CHLOROTHIEN-2-YL) CARBONYL) AMINO) -1-(((2-FLUORO-4-(2-OXO-2H-PYRIDIN-1-YL) PHENYL) CARBAMOYL) METHYL) PYRROLIDIN-3-YL) METHYL ESTER/CN

E6 1 METHANESULFONIC ACID ((5R)-3-(3-FLUORO-4-(TETRAHYDROTHIOPYRAN-4-YL) PHENYL) -2-OXOOXAZOLIDIN-5-YL) METHYL ESTER/CN

E7 1 METHANESULFONIC ACID ((5R)-3-(4-((1,4-DIBENZYLPIPERAZIN-2-YL) METHYL) ETHYLAMINO) -3-FLUOROPHENYL) -2-OXOOXAZOLIDIN-5-YL) METHYL ESTER/CN

E8 1 METHANESULFONIC ACID ((5R)-3-(4-(3,6-DIHYDRO-2H-THIOPYRAN-4-YL) -3,5-DIFLUOROPHENYL) -2-OXOOXAZOLIDIN-5-YL) METHYL ESTER/CN

E9 1 METHANESULFONIC ACID ((5R)-3-(4-(3,6-DIHYDRO-2H-THIOPYRAN-4-YL) -3-FLUOROPHENYL) -2-OXOOXAZOLIDIN-5-YL) METHYL ESTER/CN

E10 1 METHANESULFONIC ACID ((R)-2,2-DIMETHYL-(1,3)DIOXOLAN-4-YL) METHYL ESTER/CN

E11 1 METHANESULFONIC ACID ((R)-2-OXO-3-(1-OXO-3-(2-TRIFLUOROMETHYL) PHENYL) -1,2-DIHYDROISOQUINOLIN-7-YL) OXAZOLIDIN-5-YL) METHYL ESTER/CN

E12 1 METHANESULFONIC ACID ((R)-2-OXO-3-(8-OXO-6,7,8,9-TETRAHYDRO-5H-BENZOCYCLOHEPTEN-2-YL) OXAZOLIDIN-5-YL) METHYL ESTER/CN

=> e3

L3 1 "METHANESULFONIC ACID"/CN

=> d 13

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 75-75-2 REGISTRY

ED Entered STN: 16 Nov 1984

CN Methanesulfonic acid (CA INDEX NAME)

OTHER NAMES:

CN MCAT 1201

CN Methylsulfonic acid

CN NSC 3718

DR 125756-91-4, 98527-29-8, 115449-98-4, 62203-24-1, 87128-90-3, 44209-64-5, 44209-72-5

MF C H4 O3 S

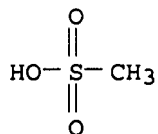
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, DETHERM\*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, PIRA, PROMT, PS, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, ULIDAT, USPAT2, USPATFULL, VTB

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

5744 REFERENCES IN FILE CA (1907 TO DATE)

205 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

5765 REFERENCES IN FILE CAPLUS (1907 TO DATE)

21 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
15.15	23.18

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 05:44:02 ON 12 JUN 2007  
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=> l1 and l2

	396 L1
	25 L2
L4	0 L1 AND L2

=> l1

L5	396 L1
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=> l2

L6	25 L2
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=> l3

L7	5760 L3
----	---------

=> d l6 1-25 ti

L6	ANSWER 1 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
TI	Acylation process for the preparation of 2,3,5-trimethylhydroquinone diacylates in the presence of methanetrissulfonic acid catalyst
L6	ANSWER 2 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
TI	Process for the manufacture of tocyl and tocopheryl acylates
L6	ANSWER 3 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
TI	Crosslinked polyoxyalkylene-polysiloxanes for use as nonaqueous salt-type electrolytes for lithium secondary batteries
L6	ANSWER 4 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
TI	Photochemical crosslinked epoxy-polyoxyalkylene-polysiloxanes for use as nonaqueous salt-type electrolytes for lithium secondary batteries
L6	ANSWER 5 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN
TI	Manufacture of $\alpha$ -tocopherol from the reaction of trimethylhydroquinone with isophytol or phytol in the presence of methane trisulfonate

L6 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Investigations on the acid-strength of alkanepolysulfonic acids

L6 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Improvement of the synthesis of the tripotassium methanetrissulfonate monohydrate

L6 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Process for the preparation of alkyl 3-alkoxypropionates

L6 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI The electrochemistry of a dimeric and two monomeric cis-trioxomolybdenum(VI) complexes containing cyclic triamine ligands in protic and aprotic media: model compounds for the active site in formate dehydrogenase

L6 ANSWER 10 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Alkoxylation of alcohols and phenols

L6 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI N-phenylcarbamate ester oligomers

L6 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Methanetrissulfonic acid derivatives

L6 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI 2-Hydroxyacetophenone via Fries rearrangement and related reactions. A comparative applied study

L6 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Tris(fluorosulfonyl)methane,  $\text{HC}(\text{SO}_2\text{F})_3$

L6 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI New electrolytes for direct methane fuel cells

L6 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Solid catalysts for heterogeneous reactions

L6 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Alkylation of phenols

L6 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Esterification catalysts

L6 ANSWER 19 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Acid-base equilibria in glacial acetic acid

L6 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Reaction of acetylene and acetic acid. Societe des usines chimiques Rhone-Poulenc

L6 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Reaction of oleum with AcOH or  $\text{Ac}_2\text{O}$

L6 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI The chlorination of methanetrissulfonic acid

L6 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI The salts of methanetrissulfonic acid

L6 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
 TI Methanetrissulfonic acid

L6 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

TI Methanoltrisulfonic acid

=> d 16 2,5,16,18,19 ti fbib abs

L6 ANSWER 2 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Process for the manufacture of tocyl and tocopheryl acylates  
AN 2004:965239 CAPLUS  
DN 141:395687  
TI Process for the manufacture of tocyl and tocopheryl acylates  
IN Bonrath, Werner; Haas, Alois; Hoppmann, Simone; Netscher, Thomas; Pauling, Horst  
PA DSM IP Assets B.V., Neth.  
SO PCT Int. Appl., 15 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

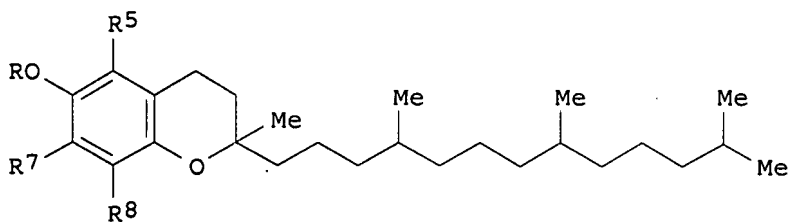
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004096790	A1	20041111	WO 2004-EP4144	20040419
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

EP 2003-9522

A 20030428

OS CASREACT 141:395687; MARPAT 141:395687

GI



AB A process for the manufacture of tocyl acylate I [R = acyl; R1 = R2 = R3 = H] or a tocopheryl acylate I [R = acyl; R5 = R7 = R8 = Me, R5 = H, R7 = R8 = Me, etc.] comprised reacting a corresponding tocol or tocopherol with an acylating agent in the presence of a catalyst of the general formula HCR1R2R3 [wherein R1, R2 and R3 each signify the sulfo group, or R1, R2 and R3 each signify a perfluoroalkylsulfonyl group whereby at least two of R1, R2 and R3 are identical such perfluoroalkyl-sulfonyl groups, or R1 signifies the pentafluorophenyl-sulfonyl group and R2 and R3 each signify an identical perfluoroalkylsulfonyl group]. The main com. form of vitamin E, being (all-rac)- $\alpha$ -tocopheryl acetate I [R = acetyl; R5 = R7 = R8 = Me], can be manufactured by acylation of (all-rac)- $\alpha$ -tocopherol according to this process.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN  
TI Manufacture of  $\alpha$ -tocopherol from the reaction of

trimethylhydroquinone with isophytol or phytol in the presence of methane trisulfonate

AN 2004:453200 CAPLUS

DN 141:23750

TI Manufacture of  $\alpha$ -tocopherol from the reaction of trimethylhydroquinone with isophytol or phytol in the presence of methane trisulfonate

IN Bonrath, Werner; Hoppmann, Simone; Haas, Alois; Netscher, Thomas; Pauling, Horst

PA DSM IP Assets B.V., Neth.

SO PCT Int. Appl., 13 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004046127	A1	20040603	WO 2003-EP10837	20030930
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
				EP 2002-25990	A 20021121
	AU 2003270295	A1	20040615	AU 2003-270295	20030930
				EP 2002-25990	A 20021121
				WO 2003-EP10837	W 20030930
	DE 10393642	T5	20051110	DE 2003-10393642	20030930
				EP 2002-25990	A 20021121
				WO 2003-EP10837	A 20030930
	CN 1701065	A	20051123	CN 2003-825314	20030930
				EP 2002-25990	A 20021121
	US 2006020139	A1	20060126	US 2005-535603	20050519
	US 7153984	B2	20061226		
				EP 2002-25990	A 20021121
				WO 2003-EP10837	W 20030930

OS CASREACT 141:23750

AB (all-rac)- $\alpha$ -tocopherol is prepared by the acid-catalyzed reaction of trimethylhydroquinone with isophytol or phytol in the presence of methane trisulfonate as the catalyst in an organic solvent.

L6 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

TI Solid catalysts for heterogeneous reactions

AN 1975:64946 CAPLUS

DN 82:64946

TI Solid catalysts for heterogeneous reactions

IN Rona, Peter

PA IMI (TAMI) Institute for Research and Development

SO Ger. Offen., 21 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2401958	A1	19740718	DE 1974-2401958	19740116
				IL 1973-41330	A 19730117
	US 3920582	A	19751118	US 1974-430804	19740104
				IL 1973-41330	A 19730117
	GB 1446964	A	19760818	GB 1974-1839	19740115

IL 1973-41330 A 19730117  
 JP 50046587 A 19750425 JP 1974-7615 19740117  
 IL 1973-41330 A 19730117

AB Catalysts for heterogeneously catalyzed reactions were prepared by impregnation of carriers with sulfonic acids. Thus, 50 g SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> pellets were treated for 30 min with 14 g benzene-1,3-disulfonic acid in H<sub>2</sub>O at 80°, dried for 6 hr at 150°, and calcined for 6 hr at 200° to give 60 g catalyst. A H<sub>2</sub>O-C<sub>2</sub>H<sub>4</sub> mixture of mol. ratio 1:1 was passed over this catalyst at 195° to give a C<sub>2</sub>H<sub>4</sub>-C<sub>2</sub>H<sub>5</sub>OH conversion of 0.3-0.5 mole % without splitting off acid from this catalyst.

L6 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

TI Esterification catalysts

AN 1963:14557 CAPLUS

DN 58:14557

OREF 58:2371g-h

TI Esterification catalysts

IN Touey, George P.; Goins, Rex H.

PA Eastman Kodak Co.

SO 3 pp.

DT Patent

LA Unavailable

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 3053884		19620911	US 1959-845336	19591009

AB CH<sub>2</sub>(SO<sub>3</sub>H)<sub>2</sub> and CH(SO<sub>3</sub>H)<sub>3</sub> are superior catalysts for preparing esters by treating saturated aliphatic mono- and polyhydroxy alcs. with phenyl dicarboxylic acids or saturated aliphatic carboxylic acids and their anhydrides. A lower concentration of catalyst is required and the ester produced

is nearly colorless and is heat stable. Two moles phthalic anhydride and five moles BuOH were refluxed 7 hrs. in the presence of various acid catalysts. The catalyst used, the catalyst concentration based on the phthalic anhydride, and the percent phthalic acid in the product are: CH<sub>2</sub>(SO<sub>3</sub>H)<sub>2</sub>, 0.1, 0.02; CH(SO<sub>3</sub>H)<sub>3</sub>, 0.1, 0.03; H<sub>2</sub>SO<sub>4</sub>, 0.1, 0.35; MeSO<sub>3</sub>H, 0.2, 1.6; MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H, 1.0, 2.0; (CH<sub>2</sub>SO<sub>3</sub>H)<sub>2</sub>, 0.2, 0.85. Data are given which show the superiority of these two catalyst for the esterification of n-octyl alc. with adipic acid and glycerol with 2-ethylhexanoic acid.

L6 ANSWER 19 OF 25 CAPLUS COPYRIGHT 2007 ACS on STN

TI Acid-base equilibria in glacial acetic acid

AN 1953:70596 CAPLUS

DN 47:70596

OREF 47:11919f-i

TI Acid-base equilibria in glacial acetic acid

AU Smith, Thor L.; Elliott, John H.

CS Hercules Powder Co., Wilmington, DE

SO Journal of the American Chemical Society (1953), 75, 3566-71

CODEN: JACSAT; ISSN: 0002-7863

DT Journal

LA Unavailable

AB Values of H<sub>o</sub> for dilute solns. (5 + 10<sup>-4</sup> to 5 + 10<sup>-3</sup> M) of 11 strong acids in AcOH containing 0.12% water were measured by use of indicators α-naphtholbenzein (I) and o-nitroaniline. H<sub>o</sub> = -log(BH<sup>+</sup>)/(B) + pK<sub>a</sub>, where (BH<sup>+</sup>) and (B) are the concns. of the acidic and basic forms of an indicator, and pK<sub>a</sub> is the thermodynamic dissociation constant for the conjugate acid of the indicator. The pK<sub>a</sub> for I was evaluated as 0.53. The order of increasing acid strength at equal molarities is: HCl, methanesulfonic, sulfuric, carboxymethanesulfonic, chloromethanesulfonic, chlorocarboxymethanesulfonic, HBr, perchloric, methanedisulfonic, chloromethanedisulfonic, and methanetrissulfonic acids. H<sub>o</sub> values for anhydrous solns. of 4 monobasic acids at 5 + 10<sup>-3</sup> M were measured, and from the increased acidity found, equilibrium consts. for the reaction of the acids with water were calculated H<sub>2</sub>SO<sub>4</sub> was found to be monobasic.

Dissociation

const., Kc, of HCl, HBr, HClO4, and H2SO4 in AcOH (calculated from conductivity data of Kolthoff and Willman (C.A. 28, 3644.1)) are  $5.1 \times 10^{-10}$ ,  $1.9 \times 10^{-7}$ ,  $9 \times 10^{-7}$ , and  $7.4 \times 10^{-9}$ , resp. The fact that values of  $\Delta pK_c$  from conductivity and from Ho data are in reasonable agreement shows that equilibrium in AcOH involve, primarily, undissocd. species.

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
39.10	62.28

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-3.90	-3.90

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 06:04:45 ON 12 JUN 2007

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1623PAZ

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
 SESSION RESUMED IN FILE 'CAPLUS' AT 07:01:07 ON 12 JUN 2007  
 FILE 'CAPLUS' ENTERED AT 07:01:07 ON 12 JUN 2007  
 COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
39.10	62.28

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-3.90	-3.90

CA SUBSCRIBER PRICE

=> d his

(FILE 'HOME' ENTERED AT 05:41:16 ON 12 JUN 2007)

FILE 'REGISTRY' ENTERED AT 05:41:32 ON 12 JUN 2007  
 E KETOISOPHORONE/CN

L1 1 E3

FILE 'CAPLUS' ENTERED AT 05:42:06 ON 12 JUN 2007

FILE 'REGISTRY' ENTERED AT 05:42:15 ON 12 JUN 2007  
 E METRANETRISULFONIC ACID/CN  
 E METHANETRISULFONIC ACID/CN

L2 1 E3

E SULFONIC ACID/CN

E METHANESULFONIC ACID/CN

L3 1 E3

FILE 'CAPLUS' ENTERED AT 05:44:02 ON 12 JUN 2007

L4 0 L1 AND L2

L5 396 L1



L6 25 L2  
L7 5760 L3

=> toluenesulfonic

20641 TOLUENESULFONIC  
1 TOLUENESULFONICS  
L8 20642 TOLUENESULFONIC  
(TOLUENESULFONIC OR TOLUENESULFONICS)

=> methanetrissulfonic

L9 37 METHANETRISULFONIC

=> 18(1)19

L10 1 L8(L)L9

=> d l10 1 ti fbib abs

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN

TI Alkylation of phenols

AN 1963:468923 CAPLUS

DN 59:68923

OREF 59:12707d-f

TI Alkylation of phenols

IN McConnell, Wayne V.; Davis, Herman E.

PA Eastman Kodak Co.

SO 2 pp.

DT Patent

LA Unavailable

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3082258		19630319	US 1960-28557	19600512
				US	19600512

AB The preparation of 2,6-di-tert-butyl-4-methylphenol (I) from 4-methylphenol (II) and isobutylene using hydrated methanedi- or trisulfonic acid catalysis was described. I was useful as an antioxidant and stabilizer for fats and oils. Thus, 112 g. isobutylene was bubbled through a flask containing 108 g. II and 1.1 g. methanedisulfonic acid dihydrate (III) in 100 cc. benzene. In the initial stages the temperature varied from 25-40° due to the cooling effect of isobutylene refluxing in a dry ice-acetone cooled condenser. Thereafter the temperature was held at 40° for a total reaction time of 6 hrs. The supernatant liquid was decanted from the catalyst. Unreacted II (6%) and 2-tert-butyl-4-methylphenol (31% conversion) were extracted with aqueous NaOH. After removal of C6H6, I was obtained (63% conversion), m. 68-9° (50% aqueous MeOH). Under the same conditions, 5.5 g. III gave an 88% conversion to I. Only a 20% conversion resulted from use of 1,2-ethanedisulfonic acid. Benzenedisulfonic acid caused polymerization of isobutylene. When p-toluenesulfonic acid or H2SO4 was used in concentration of 5% based on the weight of II the product

had poorer color and odor. White, odorless I could also be prepared in 84 and 80% conversions, resp., using 2.2 g. III and no solvent or using 1% by weight methanetrissulfonic acid trihydrate.

=>

=> logoff hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
62.40	85.58

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-4.68	-4.68

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 07:22:07 ON 12 JUN 2007